Name:_____ Period:_____

1. Solve each equation:

a. $26 = 8 + v$

b. $m + 4 = -12$

c. $-6 + \frac{x}{4} = -5$

d. $-1 = \frac{5+y}{6}$

e. $-2 = 2 + \frac{p}{4}$

f. $144 = -12(x + 5)$

2. Check whether the given value of x is a solution to the equation. Justify your answer.

   a. $\frac{1}{4}(x+4)=20$ for $x=40$

   b. $5x-3=7x+6$ for $x=-4\frac{1}{2}$

3. The sum of three consecutive integers is 72. What are the three integers?

4. Andrew is trying to create a number puzzle for his younger sister to solve. He challenges his sister to find the mystery number. He says, "When 19 is added to one-third of a number, the result is 47." What is Andrew's mystery number? Justify your answer.

5. The longest side of a triangle is six more units than the shortest side. The third side is twice the length of the shortest side. If the perimeter of the triangle is 25 units, write and solve an equation to find the lengths of all three sides of the triangle. (Hint: It might be helpful to draw a model!)

6. The length of a rectangle is $(x + 3)$ inches long, and the width is 3 inches. If the area is $15\frac{3}{10}$ square inches, write and solve an equation to find the length of the rectangle. (Hint: It might be helpful to draw a model!)

7. A picture $10\frac{1}{4}$ feet long is to be centered on a wall that is $14\frac{1}{2}$ feet long. How much space is there from the edge of the wall to the picture? (Hint: It might be helpful to draw a model!)

8. In August, Cory begins school shopping for his triplet daughters. One day, he bought 10 pairs of socks for $2.50 each and 3 pairs of shoes for d dollars each. He spent a total of $135.97. Write and solve an equation to find the cost of one pair of shoes.

9. Jenny invited Gianna to go watch a movie with her family. The cost of the 3D ticket was double the cost of the regular admission ticket.. Jenny and Gianna decided to watch the newest movie in 3D. Jenny's mother, father, grandfather and little brother went to the regular admission movie.

   The family purchased refreshments and spent a total of $18.50. If the total amount of money spent on tickets and refreshments was $94.50, use an equation to find the cost of one regular admission ticket.